

The following Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Original) A twin-clutch manual gearbox for an engine, the gearbox including:

a first input shaft and a second input shaft to which engine rotation is selectively input via individual clutches, the second input shaft being rotatably fitted onto the first input shaft so that the first input shaft protrudes from a rearward end of the second input shaft farthest from the engine,

first gearsets associated with a first gearbox speed grouping, the first gearsets being located between the rearward end of the protruding first input shaft and a layshaft located substantially parallel to the first and second input shafts such that appropriate transmission is enabled for respective ones of the first gearsets,

second gearsets associated with a second gearbox speed grouping, the second gearsets being located between the second input shaft and the layshaft such that appropriate transmission is enabled for respective ones of the second gearsets, whereby rotation according to a selected gear after a gearchange is output in an axial direction from a rearward end of the first input shaft or of the layshaft,

the twin-clutch manual gearbox being characterized in that the second gearsets are positioned such that the gearset associated with the lowest gearbox speed of the second gearbox speed grouping capable of providing a bearing retaining space between the first input shaft and the second input shaft is positioned so as to be farthest from the engine, and the gearset associated with the highest gearbox speed of the remaining gearbox speeds of the second gearbox speed grouping is positioned so as to be closest to the engine.

2. (Original) The twin-clutch manual gearbox as claimed in claim 1, wherein the second input shaft is hollow for receiving a forward end of the first input shaft, thereby to define the bearing retaining space therebetween for housing a bearing for a gearset of the second gearbox speed grouping.

3. (Original) The twin-clutch manual gearbox as claimed in claim 1, wherein the second gearbox speed grouping includes a further gearset associated with a gearbox speed intermediate the lowest and highest gearbox speeds, and the further gearset being positioned intermediate the gearset associated with the lowest gearbox speed and the gearset associated with the highest gearbox speed.

4. (Original) The twin-clutch manual gearbox as claimed in claim 1, wherein the second gearsets associated with the remaining gearbox speeds of the second gearbox speed grouping are further positioned in accordance with the following criteria: (i) between a gearset associated with a gearbox speed positioned farthest from the engine and a gearset associated with a gearbox speed positioned closest to the engine and (ii) in such a manner that gearsets associated with higher gearbox speeds are positioned closer to the engine.

5. (Original) The twin-clutch manual gearbox as claimed in claim 1, wherein the gearsets of the second gearbox speed grouping provided between the second input shaft and the layshaft form an even-numbered gearbox speed grouping.

6. (Currently Amended) The twin-clutch manual gearbox as claimed in claim 5, wherein
the gearset of the second gearsets positioned farthest from the engine is a fourth gear
gearset is positioned farthest from the engine.

7. (Currently Amended) The twin-clutch manual gearbox as claimed in claim 6, wherein
the gearset positioned closest to the engine is a sixth gear gearset, is positioned closest
to the engine and a second gear gearset is positioned intermediate the fourth and sixth gear gearsets.

8. (Original) The twin-clutch manual gearbox as claimed in claim 1, wherein the first gearsets of the first gearbox speed grouping form an odd-numbered gearbox speed grouping.

9. (Currently Amended) The twin-clutch manual gearbox as claimed in claim 1, wherein

the first and second input shafts and the layshaft constitute a shaft arrangement, the twin-clutch manual gearbox further comprising at least one interlocking mechanism for enabling, respectively, appropriate transmission of gearsets associated with the second gearbox speed grouping.

10. (Original) The twin-clutch manual gearbox as claimed in claim 9, further comprising

a plurality of interlocking mechanisms for enabling, respectively, appropriate transmission of gearsets associated with the second gearbox speed grouping, wherein the plurality of interlocking mechanisms is provided between the second input shaft and the layshaft on a layshaft side of the shaft arrangement.

11. (Currently Amended) The twin-clutch manual gearbox as claimed in claim 10, wherein

~~one of the~~ interlocking mechanisms ~~is include~~ a specialized interlocking mechanism specialized for enabling appropriate transmission of the gearset positioned closest to the engine, and wherein the ~~specialised~~ specialized interlocking mechanism is positioned between the gearset positioned closest to the engine and a gearset positioned adjacent to the gearset closest to the engine.

12. (Currently Amended) The twin-clutch manual gearbox as claimed in claim 11, wherein

the second gearsets associated with the second gearbox speed grouping form a grouping of a second gear gearset, a fourth gear gearset corresponding to the gearset positioned farthest from the engine and a sixth gear gearset corresponding to the gearset positioned closest to the engine, and wherein the fourth gear gearset is positioned on a side of the layshaft farthest from the engine, the sixth gear gearset is positioned on a side of the layshaft closest to the engine, the second gear gearset is positioned in between the fourth and sixth gear gearsets, one of the ~~an~~ interlocking mechanisms common to the second gear

gearset and the fourth gear gearset is positioned between the second gear gearset and the fourth gear gearset, and the a-specialized interlocking mechanism for the sixth gear gearset is positioned between the second gear gearset and the sixth gear gearset to enable appropriate transmission of the sixth gearset.

13. (Original) The twin-clutch manual gearbox as claimed in claim 12, wherein

the sixth gear gearset comprises, in a mutually interlocking manner, a sixth gear input gear which is formed as one unit onto an outer diameter of the second input shaft, and a sixth gear output gear which is rotatably provided on the layshaft, the second gear gearset comprises, in a mutually interlocking manner, a second gear input gear which is formed as one unit onto the outer diameter of the second input shaft, and a second gear output gear which is rotatably provided on the layshaft, and the fourth gear gearset comprises, in a mutually interlocking manner, a fourth gear input gear which is formed as a single unit onto the outer diameter of the second input shaft and a fourth gear output gear which is rotatably provided on the layshaft.

14. (Original) The twin-clutch manual gearbox as claimed in claim 1, wherein the layshaft has a maximum diameter approximately at a midway point.

15. (Original) The twin-clutch manual gearbox as claimed in claim 14, wherein

the midway point is at a position equivalent to a boundary between the second gearsets and the first gearsets.

16. (Original) A vehicle having an engine fitted with a twin-clutch manual gearbox as claimed in claim 1.

17. (Original) The twin-clutch manual gearbox as claimed in claim 2, wherein the second gearbox speed grouping includes a further gearset associated with a gearbox speed intermediate the lowest and highest gearbox speeds, and the further gearset

being positioned intermediate the gearset associated with the lowest gearbox speed and the gearset associated with the highest gearbox speed.

18. (Original) The twin-clutch manual gearbox as claimed in claim 2, wherein the second gearsets associated with the remaining gearbox speeds of the second gearbox speed grouping are further positioned in accordance with the following criteria: (i) between a gearset associated with a gearbox speed positioned farthest from the engine and a gearset associated with a gearbox speed positioned closest to the engine and (ii) in such a manner that gearsets associated with higher gearbox speeds are positioned closer to the engine.

19. (Original) The twin-clutch manual gearbox as claimed in claim 2, wherein the gearsets of the second gearbox speed grouping provided between the second input shaft and the layshaft form an even-numbered gearbox speed grouping.

20. (Currently Amended) The twin-clutch manual gearbox as claimed in claim 2, wherein

the first and second input shafts and the layshaft constitute a shaft arrangement, the twin-clutch manual gearbox further comprising at least one interlocking mechanism for enabling, respectively, appropriate transmission of gearsets associated with the second gearbox speed grouping.